

AMENDMENT

IN THE CLAIMS

Please amend the claims as follows:

1. (Previously presented) A process for reducing the coking on the metal walls of a reactor and a heat exchanger placed subsequent to the cracking reactor for the cracking of a feedstock of hydrocarbons or of other organic compounds comprising:

pretreating the metal walls coming into contact with the organic compounds to be cracked with a stream of steam with at least one non-sulphur-containing silicon compound which is hexamethyldisiloxane and at least one non-silicon-containing sulphur compound which is dimethyldisulfide at a temperature between 300 and 1100°C for 0.5 to 12 hours, wherein the Si:S atomic ratio is between 2:1 and 1:2 and the concentration of silicon is less than 500 ppm;

cracking the feedstock hydrocarbons or other organic compounds in the reactor and heat exchanger; and

decoking the reactor and heat exchanger with a mixture of air and steam.

2. (Previously presented) Process according to Claim 1, wherein the pretreatment of the cracking reactor is carried out at a temperature of between 750 and 1050°C.

3. (Previously presented) Process according to Claim 1, wherein the pretreatment of the heat exchanger placed subsequent to the cracking reactor is carried out at a temperature of between 400 and 700°C.

4. (Previously presented) Process according to Claim 1, wherein the pretreatment is carried out for a time of 1 to 6 hours.

5. (Previously presented) Process according to Claim 1, wherein the steam used as carrier fluid additionally comprises an inert gas.

6-10. (Canceled)

11. (Previously presented) Process according to Claim 1, wherein the concentration by mass of sulphur and silyl additives in the carrier fluid is between 50 and 5000 ppm, preferably between 100 and 3000 ppm.
12. (Previously presented) Process according to Claim 1, wherein pressure varies between 1 and 20 bar absolute, preferably between 1 and 5 bar absolute.
13. (Previously presented) Process according to Claim 1, wherein after the pretreatment, a sulphur compound and/or a silyl compound are added to the feedstock of the organic compound to be cracked.
14. (Previously presented) Process according to Claim 13, wherein the sulphur compound is dimethyl disulphide.
15. (Previously presented) Process according to Claim 13, wherein the silyl compound is hexamethyldisiloxane.
16. (Previously presented) Process according to Claim 13, wherein the Si:S atomic ratio does not exceed 2:1 and is preferably less than or equal to 1:2.
17. (Previously presented) Process according to Claim 13, wherein there is added, to the feedstock of organic compound to be cracked comprising sulphur, a silyl compound in an amount such that the Si:S atomic ratio does not exceed 2:1, and that the concentration of silicon does not exceed 500 ppm.
18. (Previously presented) Process according to Claim 13, wherein the concentration by mass of sulphur in the organic compound to be cracked is between 10 and 1000 ppm.
19. (Canceled)

20. (Previously presented) Process according to Claim 11, wherein the concentration is between 100 and 3000 ppm.

21. (Previously presented) Process according to Claim 12, wherein the pressure is between 1 and 5 bar absolute.

22. (Previously presented) Process according to Claim 16, wherein the ratio is less than or equal to 1:2.

23. (Previously presented) Process according to Claim 17, wherein the ratio is less than or equal to 1:2.

24. (Previously presented) Process according to Claim 18, wherein the concentration is between 20 and 300 ppm.

25. (Previously presented) A process for reducing coking on metal walls of a cracking reactor and a heat exchanger placed subsequent to the cracking reactor for the cracking of hydrocarbons or other organic compounds comprising;

pretreating the metal walls coming into contact with the organic compounds to be cracked with a stream of steam having at least one non-sulphur-containing silicon compound and at least one non-silicon-containing sulphur compound at a temperature between 300 and 1100 °C for 0.5 to 12 hours, such that the at least one non-silicon containing sulphur compound is carbon disulphide or a compound of formula $R^1-S_x-R^2$ in which R^1 and R^2 , which are identical or different, each are representative of a hydrogen atom or hydrocarbonaceous group, and x is a number equal to or greater than 1, such that an inhibition of coke percentage on the metal walls of the cracking reactor and the heat exchanger is 36 to 66%;

cracking the feedstock hydrocarbons or other organic compounds in the reactor and heat exchanger; and

decoking the reactor and heat exchanger with a mixture of air and steam.

26. (Previously presented) The process according to claim 25, wherein the inhibition of coke percentage is 53 to 66 %.

27. (Previously presented) The process according to claim 25, wherein the at least one non-sulphur containing silicon compound comprises hexamethyldisiloxane and wherein the at least one non-silicon containing sulphur compound comprises dimethyldisulphide.

28. (Previously presented) The process according to claim 27, wherein the Si:S atomic ratio is between 2:1 and 1:2.

29. (Previously presented) The process according to claim 25, wherein the pretreatment of the cracking reactor is carried out at a temperature from 750° to 850 °C.

30. (Previously presented) The process according to claim 1, further comprising:
repeating the cracking step and the decoking step.

31. (Previously presented) The process according to claim 25, further comprising:
repeating the cracking step and the decoking step.